REMARKS

This is a second Preliminary Amendment.

Claim 1 has been cancelled, and the dependent claims have been amended to depend from claim 9. Independent claim 9 recites an optical interferometer that includes, in part, a beam splitter having a cube-like shape with an incident surface and a mirror surface inclined to one another. An incident beam is inclined with respect to a normal line of the incident surface of the beam splitter.

As explained in applicant's specification (*see, e.g.*, page 3, lines 12-18), arranging the cube-shaped beam splitter at an inclined angle with respect to the incident optical axis may reduce the optical interference that otherwise may be caused by light reflected from the surface of the beam splitter.

In a final Office action in the parent application (USSN 09/785,585), the subject matter of most of the currently pending claims was rejected as unpatentable over the combination of U.S. Patent Nos. 4,243,323 (Breckinridge) and 6,034,773 (Nishimura et al.). The subject matter of claim 5 was rejected over the combination of those patents in view of U.S. Patent No. 5,325,226 (Khoe). As discussed below, applicant submits that those conclusions are incorrect.

A finding of obviousness requires that there be a clear motivation to combine the references to obtain the claimed subject matter. In this case, a finding of obviousness would be based on the improper kind of hindsight that the Federal Circuit has warned against:

> Our case law makes clear that the best defense against hindsight-based obviousness analysis is the rigorous application of the requirement for a showing of a teaching or motivation to combine the prior art references. See Dembiczak, 175 F.3d at 999, 50 USPQ2d at 1617. "Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability--the essence of hindsight." Id.

> "When a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references." In re Rouffet, 149 F.3d 1350, 1355, 47 USPQ2d 1453, 1456 (Fed. Cir. 1998) (citing In re Geiger, 815 F.2d 686, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987)).

Ecolochem, Inc. v. Southern California Edison Co., 56 USPQ2d 1065, 1072-73 (Fed. Cir. 2000). The showing of the motivation to combine must be "clear and particular." *See, e.g., C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998); *Teleflex, Inc. v. Ficosa North Am. Corp.*, 63 USPQ2d 1374, 1387 (Fed. Cir. 2002).

The Breckinridge patent discloses an interferometer which includes a beamsplitter. Two different implementations of a beamsplitter are disclosed: (1) a beamsplitter with wedge-shaped optical elements 50, 52 (*see* FIGS. 1-3), and (2) a beamsplitter with a cube-like shape indicated by the dashed line 90 in FIG. 2. As shown by FIG. 2 of the Breckinridge patent—and in contrast to pending claim 9—the incident beam from the light source 16 is perpendicular to the incident surface of the cube-shaped beamsplitter 90. There is absolutely no disclosure or suggestion in the Breckinridge patent of using a cube-like beamsplitter as recited in claim 9 where the "incident beam is inclined with respect to a normal line of the incident surface of the beam splitter." Neither the Nishimura et al. patent nor the Khoe patent disclose or suggest that feature.

The final Office action in the parent application (at paragraph 14) refered to col. 5, lines 44-51 of the Breckinridge patent as suggesting that the incident beam may be inclined with respect to the surface of the cube-shaped beamsplitter. That is incorrect. The section of the Breckinridge patent referred to by the Office action clearly relates to the embodiment in which the beamsplitter has wedge-shaped optical elements 50, 52 (*see* FIGS. 1-3) and does not relate to the embodiment that uses a cube-shaped beamsplitter. For example, the paragraph beginning at col. 5, line 34 mentions several times that the interferometer has a light-weight design (col. 5, lines 34-35 and 51-52). In contrast, the embodiment that uses the cube-shaped beamsplitter "weighs several times more than the relatively thin optical device 12" (col. 5, lines 12-15). Similarly, the paragraph beginning at col. 5, line 34 repeatedly refers to the plate-like elements

and the wedge shape of the beamsplitter 18 (*see, e.g.*, col. 5, lines 53, 57, 60). Those features do not relate to the embodiment that uses the cube-shaped beamsplitter. Therefore, when read in context, the statement at col. 5, lines 44-51 relates to the embodiment that uses the wedge-shaped beamsplitter. The Breckinridge patent—alone or in combination with the other cited references—would not have provided a motivation to incline the incident beam with respect to the surface of the cube-shaped beamsplitter as recited in claim 9.

The remaining claims depend from claim 9 and should be allowable at lesat for the same reasons.

The final Office action in the parent application also rejected claim 8 as including subject matter that was not disclosed in the application as originally filed. That is incorrect. Claim 8 adds the limitation that an angle between the incident surface of the beamsplitter and its mirror surface is set to 45 degrees. That feature is shown, for example, in the figures with reference to the beamsplitter 4 and is sufficient to support the written edscription requirement. *See, e.g., Cooper Cameron Corp. v. Kvaerner Oilfield Prods., Inc.*, 62 USPQ2d 1846, 1850-1851 (Fed. Cir. 2002) (features shown in the drawings supported written description requirement).

In view of the foregoing remarks, applicant respectfully requests allowance of the claims.

Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

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